NOT MEASUREMENT SENSITIVE

MIL-STD-2045-48501

NOTICE 1

1 Sep 1996

NOTICE OF CHANGE

MILITARY STANDARD
COMMON SECURITY LABEL
(CSL)

TO: ALL HOLDERS OF MIL-STD-2045-48501

1. THE FOLLOWING PAGES OF MIL-STD-2045-48501 HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
i	1 Sep 1996	i	25 Jan 1995
17	1 Sep 1996	17	25 Jan 1995
18	1 Sep 1996	18	25 Jan 1995
18A	1 Sep 1996	New Page	
28	1 Sep 1996	28	25 Jan 1995
DD Form 1426	1 Sep 1996	DD Form 1426	25 Jan 1995

AMSC N/A

AREA DCPS

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NOTICE OF CHANGE MIL-STD-2045-48501

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

3. Holders of MIL-STD-2045-48501 will verify that page changes and additions indicated above have been entered. This notice and page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the military standards is comletely revised or canceled.

CUSTODIANS:
DISA: DC
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Preparing Activity:
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Reviewing Activity:
ARMY: SC
AIR FORCE: 02, 13, 17, 29, 90
DLA: DH
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ODISC4: AC
STRICOM: PT
NAVY: EC, CH, ND, TD, OM
USMC: MC, CG

(Project IXMP-000200)

FOREWORD

This military standard is approved for use by all Departments and Agencies of the Department of Defense.

Beneficial comments (recommendations, additions, deletions) and any pertinent data that may be of use in improving this MIL-STD should be addressed to the Preparing Agency (PA) via the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this MIL-STD or by memorandum.

The PA for this standard is Defense Information Systems Agency (DISA). The custodians for this document are defined in the Defense Standardization Program (DSP), "Standardardization Directory (SD-1) under Data Communications Protocol Standards (DCPS). Additional information can be obtained from:

Joint Interoperability and Engineering Organization(JIEO)
ATTN: JEBB
Building 283
Fort Monmouth, New Jersey 07703-5613

The Common Security Label (CSL) and the Standard Security Label (SSL) developed by NIST (FIPS 188) have been extensively coordinated so that the standards portion of both be essentially identical. In addition the CSL will be revised to reference the SSL. Once the SSL is published, however, the revised CSL will have no impact on Project Managers that implement this version of the CSL. The CSL differs from the SSL in that the CSL contains standards implementation guidance for DoD Program Managers with imminent acquisitions. No implementation guidance is contained in (or planned for) the SSL.

5.5 Tag Classes

Tags are divided into tag classes. When used to support current DoD policy, the label numbers 1,2, and 5 defined in this document belong to the Mandatory Access Control (MAC) Sensitivity class and support the MAC Sensitivity Security policy. They each represent a different method for representing a MAC sensitivity label consisting of a level and a set of categories. Tag number 6 is a Release Category Tag.

5.5.1 Security Policy and Procedures

The security policy associated with a tag class defines how the attributes are to be used to make security decisions. A CSL may include multiple tags.

For current DoD systems and policy, the processing procedures below provide a detailed description of steps for transmitting packets from a "source" system, processing packets through an "intermediate" system, and receiving packets at a "destination" system. Section 5.6 describes the general processing procedures. Additional procedures specific to each tag class then follow.

In this document, source and destination systems are also known as "end" systems. Further, an intermediate system differs from an end system in that it does not process a protocol data unit above the (network) layer. End systems may also act as intermediate systems when forwarding packets between networks. Routers are examples of intermediate systems and need only implement the procedures defined for these systems.

5.5.2 Registration of Unique Tag Types

NIST is the US Registration Authority of Security

Objects. All developers and implementers of communications systems that utilize security labels and that are not closed and experimental should apply to NIST for DOI Identifier Numbers.

The procedures and sample forms for registration are in NISTIR 5308, "General Procedures for Registering Computer Security Objects," published by the US Department of Commerce, Technology Administration, NIST, Gaithersburg, MD 20899. The current address of the NIST Registration Authority is:

Computer Security Objects Register
National Institute of Standards and Technology
Computer Systems Laboratory
Program Coordination and Support Group
BLDG 225, Rm B151
Gaithersburg, MD 20899
Telephone: 301-975-2821
FAX: 301-948-1784

5.6 Processing Procedures

The processing procedures defined in this section provide implementation guidance showing the basic procedures for TCP/IP that existing CSL implementations provide. Additional procedures then follow for specific tag classes.

5.6.1 Source System

The CSL source system performs the following steps prior to transmitting a protocol data unit. Some of these steps lead to auditable events for specific security policies.

a. Get the required security attributes associated with the data to be included in the protocol data unit.

b. Select a DOI to use based on the security attributes and destination address.

c. End-system attribute values are converted to the values associated with the DOI chosen, if necessary.

d. The appropriate tags are constructed to hold the security attributes and placed in the CSL.

e. The CSL is placed in the header.

f. The protocol data unit will be rejected if its transmission violates local security policy. A configuration parameter (which is a name for a programming variable) OUT-VIOLATION-MSG is used to determine if an error message is to be sent to the upper layer protocol. If OUT-VIOLATION-MSG is set to 1 then an error message is passed to the upper layer protocol. If OUT-VIOLATION-MSG is set to 0

then no message is sent. The default value for OUT-VIOLATION-MSG is 1. A log of all violations should be kept in an audit log.

5.6.2 Intermediate System

In the case that intermediate systems process the label, intermediate systems perform the following steps in processing each protocol data unit:

a. Since an end system may also be an intermediate

New page

6.0 **Key Words**

CIPSO
Common Security Label
CSL
DCPS
IXMP
IXMP Working Group for Security
Label Standard
Mandatory Access Control(MAC)
Sensitivity Security Class Tags
Registration
Release Markings Security Policy (RMSP)Security Label
Protocol data unit
Security Label Specification
Sensitivity hierarchical level
SSL

Supersedes page 28 of MIL-STD-2045-48501, 25 Jan 95

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
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I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-STD-2045-48501	2. DOCUMENT DATE *(YYMMDD)* 950125

3. DOCUMENT TITLE Common Security Label (CSL)

4. NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*	b. ORGANIZATION	
c. ADDRESS *(Include Zip Code)* I	d. TELEPHONE *(Include Area Code)* (1) Commercial (2) AUTOVON *(If applicable)*	7. DATE SUBMITTED *(YYMMDD)*

8. PREPARING ACTIVITY

a. NAME Mr. G. M. Ring	b. TELEPHONE *(Include Area Code)* (1) Commercial (908) 532-7730 (2) AUTOVON 992-7730
c. ADDRESS *(Include Zip Code)* CDR, JIEO ATTN: JEBB Bldg 283 Ft. Monmouth, NJ 07703-5613	**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:** Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340

DD Form 1426, OCT 89, *Previous editions are obsolete*.